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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 918,404	07 30 2001	Lawrence A. Booth JR.	INTL-0618-US (P11949)	4653

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EXAMINER

MACCHIAROLO, PETER J

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 04 16 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/918,404

Applicant(s)

BOOTH ET AL.

Examiner

Peter J Macchiarolo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 03 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other _____

DETAILED ACTION

Response to Amendment

1. The reply filed on March 3, 2003 consists of changes to the specification and to the claims, and further, the reply consists of remarks related to the prior rejection of claims in the First Office Action. However, claims 1-15 are not allowable as explained below.

Specification

2. The specification amendments filed on March 3, 2003 have been entered and considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inohara et al. (USPN 4,357,557) in view of Matsuura et al. (USPN 6,498,428).
4. In regards to claims 1, 6, and 11, Inohara discloses in figure 7, an EL display panel and module, comprising a front plate (1) having an EL material formed on one side thereof, a back plate (11) secured over the one side of the front plate, and a filler material (13) including a desiccant (silica gel particles, see column 6 lines 37-41) is mixed into the filler material to seal the region between the front and back plates.
5. Inohara is silent to the light emitting material being organic.

6. However, Matsuura discloses in figure 1, an organic light emitting display comprising a front plate (2) having an organic light emitting material (5) formed on one side thereof.

7. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to replace Inohara's EL material with Matsuura's organic light emitting material with the method recited in claim 11, since it is well known in the art that organic light emitting material can be manufactured thinner and therefore, can be made and lighter and more compact, and this corresponds to a strategic advantage in certain markets. Further, the method recited in claim 11 is an obvious method of manufacturing such a device.

8. In regards to claims 2 and 13, Inohara and Matsuura teach all of the recited limitations claims 1 and 11 (above).

9. Inohara further teaches in figure 7, the display includes a plurality of light emitting modules which form an array, each including a front plate (6) and a back plate (3) and filler material including a desiccant (silica gel particles) provided between the modules (13 between the front plates 6), and this configuration completely removes moisture from the surroundings of the EL display panel.

10. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the organic light emitting display of Inohara including an organic EL display and a plurality of modules, each including a front plate and a back plate and filler material provided between the modules, since Inohara teaches this configuration completely removes moisture from the surroundings of the EL display panel. Further, the method recited in claim 13 is an obvious method of manufacturing such a device.

11. In regards to claims 3, 5, 7, 9, 12, and 15, Inohara and Matsuura teach all of the recited limitations claims 1, 6, and 11 (above).

12. Inohara further teaches in column 2 lines 19-28, that the filler material includes silica gel particles as a desiccant, and this configuration protects the EL element from damaging moisture.

13. Inohara is silent to the filler material containing epoxy.

14. However, it is well known that epoxy will further protect the EL device from moisture.

15. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the organic light emitting display according to Inohara including an organic EL device, including the desiccant being silica and the filler material including epoxy, since Inohara teaches this configuration protects the EL element from moisture and it is well known that epoxy will further protect the EL device from moisture. Further, the method recited in claim 13 is an obvious method of manufacturing such a device.

16. In regards to claims 4, 8, and 14, Inohara and Matsuura teach all of the recited limitations of claims 1, 6, and 11 (above).

17. Matsuura further teaches in column 8 lines 22-25 that preferred moisture absorbing polymers for an organic light emitting displays are, among others, silica gel and zeolite.

18. Both Inohara and Matsuura are silent to motivate one to use the desiccant zeolite.

19. However, it is well known to those skilled in the art that zeolite absorbs more moisture in a low relative humidity environment than silica gel.

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20. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the light emitting display of Inohara, including an organic EL element and the desiccant being zeolite, since it is well known to those skilled in the art that zeolite absorbs moisture better in a low relative humidity environment than silica gel. Further, the method recited in claim 14 is an obvious method of manufacturing such a device.

21. In regards to claim 10, Inohara and Matsuura teach all of the recited limitations claim 6 (above).

22. Matsuura further teaches in figure 1 that the organic light emitting material is deposited on the one side of the front plate (2).

23. Matsuura is silent to the exact reason for this configuration.

24. However, it is obvious to those skilled in the art that this configuration will allow a protective barrier to be formed around the organic light emitting material, which will allow the organic electroluminescent element to function properly.

25. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct a display according to claim 6 (above), further wherein the organic light emitting material is deposited on the one side of the front plate, since it is well known that this configuration will allow the organic electroluminescent element to function properly.

Response to Arguments

26. Applicant's arguments filed March 3, 2003 have been fully considered but they are not persuasive.

27. The arguments recited that the Examiner made an incorrect reading of U.S. Patent 4,357,557 to Inohara et al. specifically, the filler material 13 does not include the desiccant. However, the Examiner respectfully refers Applicant to column 6, lines 37-41, and figure 7.

"In this example, into the protective liquid 13, silica gel particles are dispersed as an absorptive member whose diameter is in the range of about 3 to 75 μm ."

28. Figure 7 illustrates the filler material 13 is mixed with an unlabeled substance. In light of Inohara's above teaching, and since the moisture absorbing member 16 is not present in figure 7, it can be ascertained that a desiccant of silica gel particles are mixed into the filler material, which also seals the region between the front and back plates of the device.

Conclusion

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

30. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter J Macchiarolo whose telephone number is (703) 305-7198. The examiner can normally be reached on 7:30 - 4:30, M-F.

32. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

33. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

pjm
April 11, 2003

